Answers:

Network 1:
It is possible to find a route which travels each street only once.
Answers may include:
- B to E to A to B to C to D to E
- E to A to B to C to D to E to B

Network 2:
It is not possible to find a route which travels each street without retracing.

Teacher Note:

A **network** is a figure made up of points called vertices that are connected by segments called arcs. A **traversable network** can be drawn without lifting the pencil off the paper or by drawing any arc more than once. A network is **traversable** if it has at most 2 odd vertices. To determine if a vertex is odd or even, count the number of segments drawn out of the vertex.[1]

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[1] Billstein, R. & Williamson, J. (1999). *Mathematics Book 2* (p.449). Evanston, IL: McDougal Littell